

## REMARKS

Claims 1,2,7 and 8 were elected for prosecution. Amended claims 1,2,7 and 8 are under consideration. Figure 2 has been corrected. Claims 9 and 10 are cancelled. Reconsideration of amended claims is respectfully requested.

### Page 2 of Action, first paragraph:

The Action states that the amendment filed 2/14/05 is objected to under 35 U.S.C. 132 as new matter, because *“the added material which is not supported by the original disclosure is as follows: In paragraph 0030, line 2, the phrase “has no effect” has been amended to recite “has no such preventive and or inhibitory effect”, which dramatically changes the scope and meaning of said phrase.”*

In response, applicant disagrees. Amended Paragraph 0030 is reproduced below:

[0030]       The peptide of the present invention, while preventing and/or inhibiting the adverse effects of scuPA on blood vessels, has no such preventive and/or inhibitory effect on the fibrinolytic activity of scuPA. The peptide is therefore useful in clot lysis during thrombolytic therapy in myocardial infarction, stroke and related complications.

It is clear from the above paragraph that the amendment –such preventive and /or inhibitory – was made to clarify the preceding part of the sentence “ The peptide of the present invention, while preventing and or inhibiting the adverse effects of scuPA on blood vessels, has no such preventive and/or inhibitory effect on the fibrinolytic activity of scuPA.”

Furthermore, applicant refers to paragraph 0010 of the specification which clearly describes that the polypeptide enhances the thrombolytic activity of scuPA. This is in

agreement with the amendment of 2/14/05. Therefore the above rejection should be withdrawn.

Page 2 of Office Action, paragraph 3:

Claims 9 and 10 were withdrawn in the amendment of 2/14/05. These claims are cancelled to avoid further confusion.

Page 3 to Page 4, paragraph 1 of Office Action:

The Action rejected claims 1,2,7 and 8 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement because the limitation “in the range of 2 $\mu$ M to 10  $\mu$ M has no support in the specification as filed.

In response, applicant has made correction of a typographical error in Figure 2 which recited the concentration of 10mM instead of the correct one 10  $\mu$ M . This is NOT new matter because there is support for it in paragraph 0056 that describes the results in Figure 2 and states : “However, at 10  $\mu$ M , the peptide abolished the effect of TNK-tPA.

Applicant has submitted a Replacement Sheet ¾ with the corrected dosage of 10  $\mu$ M and a marked up copy. Therefore, the above rejection should be withdrawn.

Page 4, second paragraph to Page 6, second paragraph:

The Action rejects claims 1,2,7 and 8 under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement, specifically to the method “without causing cranial hemorrhage” and to the combination of scuPA and the peptide.

In response, applicant has amended independent claims 1 and 7 and claims 2 and 8 dependent there from respectively.

As to support in the Specification that scuPA acts similarly to tPA or TNK-tPA, applicant refers the Examiner to Paragraph 0047 wherein co-pending applications by applicant have been referenced and incorporated by reference in their entirety. Since the status of the four pending applications has changed, applicant has submitted herewith a request for amendment of Paragraph 0047 (see above).

Thus, there is no basis to maintain the above rejection. This rejection should be withdrawn.

Page 6, third paragraph to page 7, first paragraph of Office Action

The Action rejects claims 7 and 8 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

In response, applicant has amended claim 7. As to the inclusion of scuPA in claim 8, applicant submits the same explanation as in amended Paragraph 0047 of the Specification.

**Rejection Under 35 U.S.C. 103**

Page 7, Paragraph 2 to Page 8, Paragraph 2:

The Action maintains the rejection of claims 1, 2, 7 and 8 under 35 USC 103(a) as being unpatentable over U.S. Patent No 5,130,143 (Ref A in IDS) in view of Zhang et al (J.Biol Chem 272: 27053, 1997) (Ref U in IDS).

The Action states that hindsight is permissible so long as it takes into account only

knowledge which was within the level or ordinary skill at the time the claimed invention was made. *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA).

As to the requirement of suggestion to combine the references to sustain an obviousness rejection, the examiner cites *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and states that “*because EEIIMD and its parent protein, PAI-1 were known modulators of the fibrinolytic activities of tPA and uPA (Zhang et al), the person of ordinary skill in the art would have been motivated to combine EEIIMD and scuPA for the benefit of controlling the activity in vitro and in vivo. The fact that applicant has recognized another advantage which would flow naturally from the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. Ex part Obiaya, 227 USPQ 58, 60 (Bd. Pat. App & Inter. 1985).*”

In response, applicant disagrees. The standard set forth in *McLaughlin* (supra) does not include knowledge gleaned from applicant’s disclosure. It is evident from the examiner’s conclusion that the examiner is not relying on objective evidence and is not drawing her conclusions on motivation to combine references based on specific findings as required by *In re Fine*, 837 F2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F2d 347, 21 USPQ2d 1941 (Fed Cir 1992).

For example, US ‘143 describes a composition of the fibrinolytic agent t-PA and a low affinity heparin fraction, to allow t-PA to dissolve blood clots while heparin prevents reocclusion without side effects of unfractionated heparin (such as interference with t-PA activity and interference with fibrinolytic activity which can cause hemorrhaging). Claim 1 of US ‘143 covers a LA-heparin composition lacking affinity for t-PA.

And, Zhang describes a study to determine whether a small peptide EEIIMD, derived from PAI-I would alter the cellular binding and clearance of uPA mediated by  $\alpha$ 2-macroglobulin receptor/low density lipoprotein receptor ( $\alpha$ 2MR/LRP). In other words, the two cited references are not sufficient for those of ordinary skill in the art having the references before them to make the present invention. In determining the propriety of the Patent Office case for obviousness it is necessary to ascertain whether the references' teachings are sufficient to make the proposed substitution, combination, or other modification. In re Lintner, 458 F2d 1013, 1016, 173 USPQ 560, 562 (CCPA1972).

Indeed, under the facts of both In re Fine and In re Jones, the court found there was no suggestion to combine the references to arrive at the claimed invention.

Therefore, there is no basis as a matter of law and fact to sustain the above rejection under Section 103, and the rejection should be withdrawn.

Moreover, as pointed out in the 2/14/05 response, the cited references teach away from the present invention. The examiner has not responded to this argument. This secondary factor alone should abrogate the above rejection.

Claims 7 and 8 were rejected because the recitation of "enhancing the fibrinolytic activity of a fibrinolytic agent" has not been given patentable weight.

Claim 7 has been amended. Claims 8 which depends on claim 7 is therefore amended also. This rejection should be withdrawn.

If for any reasons however, the Examiner should deem that this application is not in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney listed below to resolve any outstanding issues prior to issuing a further

Office Action.

Respectfully submitted,

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BY: Rashida A. Karmali

Rashida A. Karmali

Date: 5/9/2005.

Title: Peptide for Regulation of Urokinase Plasminogen Activator and Method of Optimizing  
Therapeutic Efficacy

Inventor: Higazi, Abd. Al-Roof  
Attorney Docket No. 143.006



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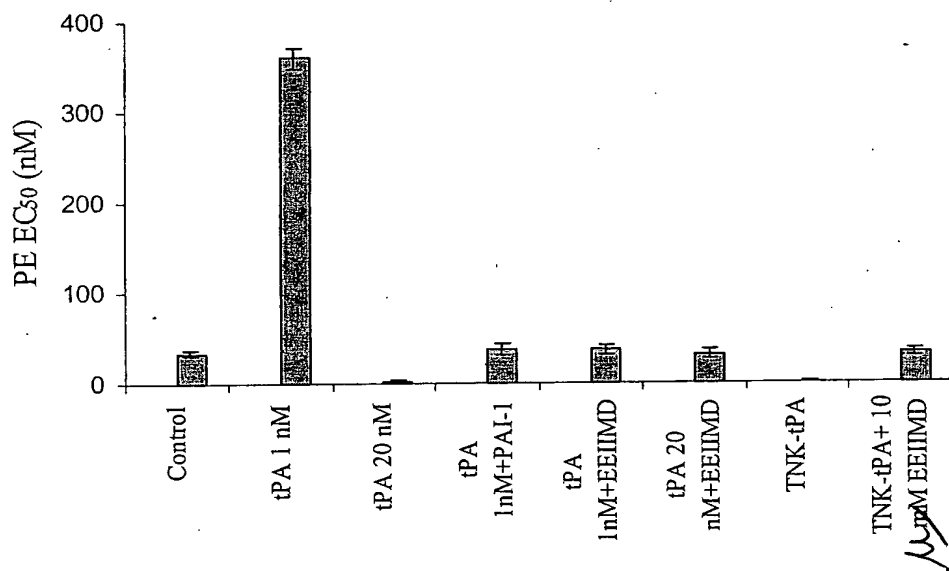


FIG. 2